

**VASCULAR PLANTS OF THE CUYAMACA AND LAGUNA MOUNTAINS,
CALIFORNIA**

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ABSTRACT

A total of 996 taxa are included in this checklist of the vascular plants of the Cuyamaca and Laguna mountains of San Diego County, California. The introduction includes information on climate, geology, and patterns of biogeographical disjunction in this area.

KEY WORDS: vascular plants, Cuyamaca and Laguna mountains, California

This checklist is based on *Plants of Montane San Diego County* compiled by Duffie Clemons (1986) for the California Native Plant Society and the San Diego Natural History Museum. The area covered here includes the Cuyamaca and Laguna mountains of central San Diego County, California and their adjacent foothills. Altitudes range from approximately 910 meters (3,000 feet) on the eastern and western boundaries to a high of 1970 meters (6,500 feet) on Cuyamaca Peak.

The Cuyamacas and Lagunas are parallel, north-south trending ranges that converge in the vicinity of Cuyamaca Lake. Corte Madera Mountain and Guatay Mountain, which are located slightly south of these two ranges, Volcan Mountain, located immediately north, and Poser and Viejas mountains and Mesa Grande, which lie slightly west of the Cuyamacas, are also included. The small settlements of Buckman Springs and San Felipe lie on the eastern boundary. Banner lies approximately five kilometers (three miles) within this boundary. The distance from the western to the eastern boundary is approximately 24 kilometers (fifteen miles), and 40 kilometers (25 miles) from the northern to the southern boundaries.

PHYSICAL CHARACTERISTICS AND VEGETATION OF THE REGION

The Cuyamaca Mountains receive more rain than any other area in southern California of comparable elevation, with the exception of Palomar Mountain. The high rainfall in these mountains is apparently due to their location, within forty miles of the coast and parallel to it, with no intervening ranges to catch the rainfall (Beauchamp 1972). Average annual rainfall totals cited by Wiggins (1929) at various elevations in the mountains of San Diego County, based on periods ranging from 2 to 69 years include the following:

Cuyamaca	100.93 cm	40.37 in	Descanso	59.94 cm	23.60 in
Volcan Mt.	88.25 cm	35.30 in	San Felipe	59.18 cm	23.30 in
Julian	73.71 cm	29.02 in	Mt. Laguna	57.58 cm	22.67 in

Additional data from the County of San Diego Department of Flood Control indicates that yearly rainfall averages approximately 114.3 centimeters (45 inches) on Mount Palomar and 77.47 centimeters (30.5 inches) at Mesa Grande (Allan Rand, County of San Diego climatologist, pers. comm.). The mountains of San Diego County receive a significant portion of their rainfall during the summer months with Hot Springs Mountain and the Laguna Mountains receiving the most summer rain (Raven & Axelrod 1978). Summer rain may help to offset low winter rainfall during drought years, and it is also possible that a more regular pattern of rainfall throughout the year may affect vegetation in other ways. Snow and cold temperatures occur in San Diego County mountains in winter. The highest average annual snowfall of approximately 203 centimeters (80 inches) occurs on Mount Laguna (Lower 1978).

The Cuyamaca and Laguna mountains are part of the Peninsular Range which extends from Mount San Jacinto in Riverside County almost to the southern tip of Baja California. The Peninsular Range is underlaid by the intrusive igneous geologic formation known as the Southern California Batholith. The lighter phases of plutonic (intrusive igneous) rock which contain a higher proportion of light-colored minerals are called granitic, and the darker rocks which contain more dark-colored minerals are known as gabbro.

The Cuyamaca Mountains, Poser, Viejas, and Guatay mountains, Mesa Grande, portions of Corte Madera Mountains and Garnet Peak in the Laguna Mountains are underlaid by gabbro. Chiquito Peak, Stonewall Peak, portions of Corte Madera Mountain, and part of the Volcan Range are granitic. Micaceous schist, a metamorphic rock, predominates on the eastern escarpment of the Laguna and Volcan mountains.

Soils derived from extremely light granitic rock are often sandy and sterile. Soils derived from extremely dark gabbroic rock often form heavy clays that contain highly charged ions of magnesium and iron. Clay soils have a high water-holding capacity, and are also poorly aerated during the winter months. Although both of these extreme soil types are unfavorable for many common species, other less common species are able to tolerate them. Release from competition from the more dominant species may also be a factor which enables some rare plants to persist on these soil types (Oberbauer 1993).

Plant communities within the study area range from coastal sage scrub and chaparral on the western boundary to mixed coniferous forest at the higher elevations, and pinyon-juniper woodland near the eastern boundary. Extensive mountain meadows that retain standing water until late spring are present at higher elevations in the Laguna Mountains. Cuyamaca Lake was called La Laguna Que Se Seca (the lake that dries up) by the early Spanish settlers. The valley in which this lake is located extends from the cismontane to the desert slope of the range, a distance of approximately eight kilometers (five miles) in this area. A dam constructed in 1886 at the western end of the valley now maintains a more permanent lake currently used as a reservoir.

Patterns of Biogeographical Disjunction

A total of 996 taxa are included in this checklist. More than fifty plant species regarded as rare by the California Native Plant Society (Skinner & Pavlik 1994) occur in the Cuyamaca and Laguna mountains. Striking cases of disjunct distribution which appear to be relictual also occur in the mountains of San Diego County. These are species which are common in northern California, but which are known in southern California exclusively, or almost exclusively from this area. It is probable that these species were more widely distributed in southern California during cooler, wetter climatic regimes, and have been able to persist here because of "special soil and precipitation factors" (Munz 1974). Some disjuncts which have evolved into subspecies or varieties endemic to this region are regarded as rare taxa in their own right.

Elisabeth Crow (later Norland), a student of Dr. P.A. Munz at Pomona College, noted in her Master's thesis (1931) that high rainfall and gentle topography are probably among the factors which have allowed many northern species to survive here after being extirpated from the intervening ranges. Other climatic factors may include summer rain and snow in winter. Crow (1931) also noted that disjuncts occur in cismontane and coastal as well as montane areas of both San Diego and Riverside counties where "extreme moist conditions persist". Examples which she cited include *Rhododendron occidentale* (Torrey & A. Gray) A. Gray, *Rosa gymnocarpa*, *Ceanothus foliosus* C. Parry, and *Ophioglossum californicum*.

Other observations also suggest that substrates where "extreme moist conditions persist" play a role in disjunction. Many of the disjunct taxa which occur in the Cuyamaca Mountains are restricted to gabbro soils. *Polygonum parryi* E. Greene, known in southern California only from small populations at Cuyamaca Lake and on Cuyamaca Peak, occurs on vernal wet clay soils. *Epilobium minutum* Lehm., *Aspidotis densa* (Brackener) Lellinger, and *Moehringia macrophylla* are also gabbro-restricted, and the latter two are associated with serpentine soils in northern California. Like gabbro, serpentine weathers to form soils which have a high water-holding capacity, and are also unfavorable for many plant species (Raven & Axelrod 1978).

Two additional disjuncts which are known in southern California only from the Cuyamaca Mountains are associated with vernal pools and wet meadows near Cuyamaca Lake: *Navarretia tagetina* E. Greene and *Downingia concolor* E. Greene

subsp. *brevior* McVaugh. Several other disjuncts which are more widely distributed in both the Cuyamaca and Laguna mountains are also associated with vernal pools and drying meadows which may, or may not be, overlaid by gabbro. These include *Minuartia pusilla* (S. Watson) Mattf., *Thermopsis macrophylla* Hook. & Arn. var. *semota* Jepson, *Delphinium hesperium* A. Gray subsp. *cuyamacae* (Abrams) Harlan Lewis & Epling, and *Linnanthes gracilis* Howell subsp. *parishii* (Jepson) Beauchamp.

In the Cuyamaca foothills, *Mimulus congdonii* Robinson, which is disjunct from the Sierra Nevada and Ventura County, occurs on damp, sandy, granitic soils near Descanso. *Ceanothus foliosus* var. *foliosus*, which occurs on gabbro soils in chaparral in both foothill and montane areas of the Cuyamacas, is also a disjunct which is more widely distributed in northern California. *Filago arizonica* A. Gray and *Harpagonella palmeri* A. Gray are coastal-desert disjuncts which are restricted to clay soils on the cismontane slope, but not necessarily so in desert areas.

In general, distribution patterns suggest that many disjuncts have compensated for gradually decreasing rainfall by retreating to habitats and substrates which are moist, and also unfavorable for more dominant plant species. A more complete list of disjuncts occurring in this area, a life form spectrum, and the number of non-native species and genera per family are included in appendices at the end of this checklist.

Documentation

All taxa included in this checklist are referable to the San Diego County synoptic collection housed at the herbarium of the San Diego Natural History Museum (SD). Locations in the Cuyamaca and Laguna mountains are also documented in the main collection at SD and, in some instances, in herbaria housed at the University of California, Riverside (UCR) and at Rancho Santa Ana Botanic Garden, Claremont (RSA-POM).

New locations, not cited by Beauchamp (1986), are included for a few taxa. County range extensions are documented with collector's name and number, and herbarium accession number in the *Checklist of the Vascular Plants of San Diego County* (Simpson, et al. 1994). Scientific nomenclature follows Hickman (1993). Common names are taken from Beauchamp (1986) and Hickman (1993).

Vascular Plants of the Cuyamaca and Laguna Mountains

Symbols used in this list are explained at the end of the list.

FERNS AND FERN ALLIES

ASPLENIACEAE/Spleenwort Family

Asplenium vespertinum Maxon. Corte Madera Ranch, Cedar Creek

AZOLLACEAE/Mosquito Fern Family

Azolla filiculoides Lam. Pacific mosquito fern

BLECHNACEAE/Deer Fern Family

Woodwardia fimbriata Smith Giant chain fern

DENNSTAEDTIACEAE/Bracken Family

Pteridium aquilinum (L.) Kuhn var. *pubescens* (L.) Underw.

DRYOPTERIDACEAE/Wood Fern Family

Cystopteris fragilis (L.) Bernh. Brittle bladderfern

Dryopteris arguta (Kaulf.) Maxon Coastal wood fern

Polystichum imbricans (D. Eaton) D.H. Wagner subsp. *curtium* (Ewan) D.H. Wagner
Canyon sword fern

EQUISETACEAE/Horsetail Family

Equisetum arvense L. Common horsetail

Equisetum hynale L. subsp. *affine* (Engelm.) Calder & R.L. Taylor

Equisetum laevigatum A. Braun

Equisetum telematela Ehrh. subsp. *braunii* (Milde) R.L. Hauke

ISOETACEAE/Quillwort Family

Isoetes howellii Engelm. Corte Madera Ranch

Isoetes nuttallii Engelm. Cuyamaca Peak

Isoetes orcuttii A.A. Eaton Corte Madera Ranch

MARSILEACEAE/Marsilea Family

Marsilea vestita Hook. & Grev. subsp. *vestita* Hairy cloverfern

Pilularia americana A. Braun American pillwort

POLYPODIACEAE/Polypody Family

Polypodium californicum Kaulf. California polypody

PTERIDACEAE/Brake Family

Adiantum jordanii C. Mueller California maidenhair

Aspidotis californica (Hook.) Copel. California lacefern

Aspidotis densa (Brackener) Lellinger Cuyamaca Peak; Lacefern

Cheilanthes clevelandii D. Eaton Cleveland's lipfern

Cheilanthes covillei Maxon Coville's lipfern

Pellaea andromedifolia (Kaulf.) Fee Coffee fern

Pellaea mucronata (D. Eaton) D. Eaton var. *mucronata*

Pentagramma triangularis (Kaulf.) G. Yatskievych, Windham, & Wollenweber subsp.
triangularis Goldenback fern

SELAGINELLACEAE/Clubmoss Family

Selaginella asprella Maxon Bluish mossfern

Selaginella bigelovii L. Underw. Bigelow's mossfern

GYMNOSPERMAE/CONE-BEARING PLANTS

CUPRESSACEAE/Cypress Family

¹*Calocedrus decurrens* (Torrey) Florin Incense cedar

¹*Cupressus arizonica* E. Greene subsp. *arizonica* [*C. stephensonii* C. Wolf]
Cuyamaca cypress

¹*Cupressus forbesii* Jepson Tecate cypress

¹*Juniperus californica* Carriere California juniper

EPHEDRACEAE/Ephedra Family

¹*Ephedra californica* S. Watson Thing Valley; Desert tea

PINACEAE/Pine Family

¹*Abies concolor* (Gordon & Glend.) Lindley White fir

¹*Pinus coulteri* D. Don Coulter pine

¹*Pinus jeffreyi* Grev. & Balf. Jeffrey pine

¹*Pinus lambertiana* Douglas Sugar pine

¹*Pinus monophylla* Torrey & Fremont Chariot and Indian canyons

¹*Pinus ponderosa* Laws. Ponderosa pine

¹*Pinus quadrifolia* Parl.

¹*Pseudotsuga macrocarpa* (Vasey) Mayr Big-cone Douglas fir

ANGIOSPERMAE/FLOWERING PLANTS

MONOCOTYLEDONES/MONOCOTS

ALISMATACEAE/Water-plantain Family

^h*Alisma plantago-aquatica* L. Julian and Wynola

CYPERACEAE/Sedge Family

^h*Carex alma* L. Bailey Sturdy sedge

^h*Carex globosa* Boott

^h*Carex multicaulis* L. Bailey

^h*Carex praeegracilis* W. Boott

^h*Carex sartwelliana* Olney Cuyamaca Peak

^h*Carex senta* Boott

^h*Carex spissa* L. Bailey

^h*Carex subfusca* W. Boott

²*Cyperus parishii* Britton Parish's umbrella-sedge

²*Cyperus squarrosus* L.

²*Eleocharis acicularis* (L.) Roemer & Schultes var. *bella* Piper

^h*Eleocharis macrostachya* Britton

^h*Eleocharis montevidensis* Kunth

^h*Eleocharis parishii* Britton

^h*Eleocharis pauciflora* (Light.) Link

^h*Scirpus acutus* Bigelow var. *occidentalis* (S. Watson) Beetle

^h*Scirpus americanus* Pers. American bulrush

^h*Scirpus microcarpus* C. Presl Small-fruit bulrush

IRIDACEAE/Iris Family

^a*Iris missouriensis* Nutt. Rocky Mountain blue flag^b*Sisyrinchium bellum* S. Watson Blue-eyed-grass

JUNCACEAE/Rush Family

^a*Juncus ambiguus* Guss.^b*Juncus balticus* Willd. Baltic rush^a*Juncus bryoides* F.J. Herm. One-flower dwarf rush^a*Juncus bufonius* L. var. *bufonius* Toad-rush^a*Juncus bufonius* L. var. *occidentalis* F.J. Herm.^b*Juncus dubius* Engelm. Mariposa rush^b*Juncus effusus* L. var. *pacificus* Fern. & Wieg.^a*Juncus luciensis* B. Erter^b*Juncus macrophyllus* Cov.^b*Juncus mexicanus* Willd.^b*Juncus oxymeres* Engelm.^b*Juncus patens* E. Meyer^b*Juncus phaeocephalus* Engelm. var. *paniculatus* Engelm.^b*Juncus rugulosus* Engelm.^b*Juncus tenuis* Willd.^a*Juncus tiehmii* B. Erter^b*Juncus torreyi* Cov.^b*Juncus xiphioides* E. Meyer^b*Lucula comosa* E. Meyer Cuyamaca Peak; Hairy wood-rush

JUNCAGINACEAE/Arrowgrass Family

^a*Lilaea scilloides* (Poiret) Hauman Flowering quillwort

LEMNACEAE/Duckweed Family

^b*Lemna minor* L. Lesser duckweed^b*Lemna minuscula* Herter Least duckweed

LILIACEAE/Lily Family

^a*Allium amplexans* Torrey Paper onion^a*Allium campanulatum* S. Watson Sierra onion^a*Allium fimbriatum* S. Watson var. *fimbriatum* Desert onion^a*Allium haematochiton* S. Watson Red-skin onion^a*Allium parryi* S. Watson Cuyamaca Lake, Filaree Flat^a*Allium peninsulare* Lemmon var. *peninsulare* Red-flower onion^b*Asphodelus fistulosus* L. Descanso; Hollow-stem asphodel^b*Bloomeria crocea* (Torrey) Cov. Common goldenstar^b*Brodiaea orcuttii* (E. Greene) Baker Orcutt's brodiaea^b*Brodiaea terrestris* Kellogg subsp. *kernensis* (Hoover) T. Niehaus^b*Calochortus albus* Benth. Fairy lantern^b*Calochortus concolor* (Baker) Purdy Golden-bowl mariposa lily^b*Calochortus dunni* Purdy Dunn's mariposa lily^b*Calochortus invenustus* E. Greene^b*Calochortus splendens* Benth. Lilac mariposa lily^b*Calochortus weedii* Alph. Wood var. *weedii*^b*Chlorogalum parviflorum* S. Watson Poser and Viejas mountains^b*Dichelostemma capitatum* Alph. Wood subsp. *capitatum*

- ^a*Fritillaria biflora* Lindley var. *biflora* Viejas Mountain
^a*Lilium humboldtii* Roetz & Leichtlin subsp. *ocellatum* (Kellogg) Thorne Ocellated tiger lily
^a*Lilium pardalinum* Kellogg subsp. *pardalinum* Leopard lily
^a*Muilla maritima* (Torrey) S. Watson Poser Mountain
^b*Nolina cismontana* Dice. Viejas Mountain
^b*Nolina parryi* S. Watson Parry's bear-grass
^b*Smilacina stellata* (L.) Desf. False Solomon's seal
^a*Yucca schidigera* K.E. Ortgies Spanish dagger
^b*Yucca whipplei* Torrey Whipple's yucca
^a*Zigadenus fremontii* (Torrey) S. Watson Viejas Mountain
^a*Zigadenus venenosus* S. Watson var. *venenosus* Death camas

ORCHIDACEAE/Orchid Family

- ^b*Corallorhiza maculata* Raf. Spotted coralroot
^b*Epipactis gigantea* Hook. Giant stream orchid
^b*Piperia elongata* Rydb. Cuyamaca RSP
^b*Piperia leptopetala* Rydb. Cuyamaca RSP
^b*Piperia transversa* Suksd. Cuyamaca RSP
^b*Piperia unalascensis* (Sprengel) Rydb. Cuyamaca RSP
^b*Platanthera leucostachys* Lindley Cuyamaca RSP
^b*Spiranthes porrifolia* Lindley Ladies' tresses

POACEAE/GRAMINEAE/Grass Family

- ^b*Achnatherum coronatum* (Thurber) Barkworth Giant needlegrass
^b*Achnatherum hymenoides* (Roemer & Schultes) Barkworth
^b*Achnatherum lemmonii* (Vasey) Barkworth Lemmon's needlegrass
^b*Achnatherum occidentale* (Thurber) Barkworth subsp. *californicum* (Merr. & Burt Davy) Barkworth Cuyamaca RSP
^b*Achnatherum occidentale* (Thurber) Barkworth subsp. *occidentalis* Laguna Mountains
^b*Achnatherum speciosum* (Trin. & Rupr.) Barkworth
^b*Agrostis exarata* Trin. Spike bentgrass
^b*Agrostis pallens* Trin. Leafy bentgrass
^b*Agrostis scabra* Willd. Rough bentgrass
^b*Agrostis stolonifera* L. Creeping bentgrass
^b*Agrostis viridis* Gouan Water bentgrass
^a*Aira caryophyllea* L. Silver hairgrass
^b*Alopecurus aequalis* Sobol. Short-awn foxtail
^b*Alopecurus carolinianus* Walter Carolina foxtail
^a*Alopecurus saccatus* Vasey Pacific foxtail
^a*Aristida adscensionis* L. Viejas Mountain
^b*Aristida purpurea* Nutt. var. *longiseta* (Steudel) Vasey
^b*Aristida purpurea* Nutt. var. *nealleyi* (Vasey) K.W. Allred
^b*Aristida purpurea* Nutt. var. *purpurea* Viejas Mountain
^a*Avena barbata* Link Slender wild oat
^a*Avena fatua* L.
^a*Avena sativa* L. Cultivated oat
^b*Bothriochloa barbinodis* (Lag.) Herter Viejas Mountain
^a*Bouteloua barbata* Lag. var. *barbata* Six-weeks grama
^b*Bouteloua curtipendula* (Michaux) Torrey Side-oats grama

- ^a*Briza minor** L. Corte Madera Ranch; Little quaking-grass
^a*Bromus arenarius** Labill. Australian chess
^b*Bromus carinatus* Hook. & Arn. var. *carinatus* California brome
^a*Bromus diandrus** Roth Rippgut brome
^b*Bromus grandis* (Shear) A. Hitchc. Grand brome
^a*Bromus hordeaceus** L. Smooth brome
^a*Bromus japonicus** Murr. Japanese brome
^a*Bromus madritensis* L. subsp. *rubens** (L.) Husnot Red brome
^b*Bromus orcuttianus* (Shear) A. Hitchc. Orcutt's brome
^a*Bromus tectorum** L. Cheat-grass brome
^a*Bromus trini** Desv. Chilean chess
^b*Calamagrostis koelerioides* Vasey Dense reedgrass
^a*Cynopsis vaginiflora** (Forsskal) Opiz
^b*Cynodon dactylon** (L.) Pers. Bermuda-grass
^a*Cynosurus echinatus** L. Santa Isabel, Stonewall Peak
^b*Dactylis glomerata** L. Orchardgrass
^b*Danthonia californica* Bolander var. *americana* (Scribner) A. Hitchc. California oatgrass
^b*Danthonia unispicata* (Thurber) Macoun One-spike oatgrass
^a*Deschampsia danthonioides* (Trin.) Benth. Hairgrass
^a*Deschampsia elongata* (Hook.) Benth. Slender hairgrass
^b*Distichlis spicata* (L.) E. Greene Salt-grass
^b*Elymus elymoides* (Raf.) Swezey subsp. *brevisfolius* (J.G. Smith) Barkworth
^b*Elymus glaucus* Buckley subsp. *glaucus* Blue rye
^b*Elymus glaucus* Buckley subsp. *jepsonii* (Burt Davy) Gould
^b*Elymus glaucus* Buckley subsp. *virescens* (Piper) Gould
^b*Elymus multisetus* (J.G. Smith) Burt Davy
^b*Elymus trachycaulus* (Link) Shinners subsp. *trachycaulus*
^b*Elytrigia intermedia* (Host) Nevski subsp. *intermedia**
^b*Elytrigia pontica* (Podp.) Holub. subsp. *pontica**
^a*Eragrostis curvula* (Shrader) Nees var. *conferta** Nees Descanso
^a*Eragrostis minor** Host
^b*Festuca occidentalis* Hook. Western fescue
^a*Festuca rubra* L. Red fescue
^a*Gastridium ventricosum** (Gouan) Schinz & Thell. Nitgrass
^b*Holcus lanatus** L. Creeping velvet-grass
^b*Hordeum brachyantherum* Nevski subsp. *brachyantherum*
^b*Hordeum brachyantherum* Nevski subsp. *californicum* (Covas & Stebb.) V. Bothmer, N. Jacobsen, & O. Seberg
^a*Hordeum jubatum* L.
^a*Hordeum marinum* Hudson subsp. *gussoneanum** (Parl.) Thell.
^a*Hordeum murinum* L. subsp. *glaucum** (Steudel) Tzvelev
^a*Hordeum murinum* L. subsp. *leporinum** (Link) Arcang.
^a*Hordeum vulgare** L. Cultivated barley
^b*Koeleria macrantha* (Ledeb.) J.A. Schultes Junegrass
^a*Lamarckia aurea** (L.) Moench Golden-top
^b*Leymus* × *multiflorus* (Gould) Barkworth & D.R. Dewey
^b*Leymus triticoides* (Buckley) Pilger Beardless rye
^b*Lolium perenne** L. Perennial ryegrass
^a*Lolium temulentum** L. Milk Ranch Road (UCR)
^b*Melica frutescens* Scribner Tall melic

- ^b*Melica imperfecta* Trin.
^a*Muhlenbergia asperifolia* (Nees & Meyen) L. Parodi
^a*Muhlenbergia microsperma* (DC.) Kunth Little muhly
^b*Muhlenbergia richardsonis* (Trin.) Rydb. Mat muhly
^b*Muhlenbergia rigens* (Benth.) A. Hitchc. Deergrass
^b*Nasella cernua* (Stebb. & Love) Barkworth East Mesa
^b*Nasella lepida* (A. Hitchc.) Barkworth Foothill needlegrass
^b*Nasella pulchra* (A. Hitchc.) Barkworth Purple needlegrass
^b*Panicum acuminatum* Sw. var. *acuminatum* Pacific witchgrass
^a*Panicum capillare* L. Common witchgrass
^b*Paspalum distichum* L. Common knotgrass
^b*Pennisetum setaceum* Forsskal
^b*Phalaris aquatica* L. Harding grass
^b*Phalaris arundinacea* L. Big Laguna Lake; Reed canary grass
^a*Phalaris minor* Retz Little-seed canary grass
^b*Phleum pratense* L. Timothy
^b*Piptatherum miliaceum* (L.) Cosson Smilo
^a*Poa annua* L. Annual bluegrass
^b*Poa atropurpurea* Scribner Laguna and Corte Madera mountains
^b*Poa bulbosa* L. Bulbous bluegrass
^b*Poa compressa* L. Canada bluegrass
^a*Poa howellii* Vasey & Scribner Cuyamaca RSP
^b*Poa pratensis* L. subsp. *pratensis* Kentucky bluegrass
^b*Poa secunda* J.S. Presl subsp. *secunda* Malpais bluegrass
^a*Polypogon interruptus* Kunth Ditch beardgrass
^a*Polypogon monspeliensis* (L.) Desf. Rabbit-foot grass
^a*Schismus barbatus* (L.) Thell.
^a*Secale cereale* L. Descanso; Common rye
^b*Sorghum halepense* (L.) Pers. Johnson grass
^b*Sphenopholis obtusata* (Michaux) Scribner Cuyamaca Mountains
^b*Sporobolus airoides* (Torrey) Torrey Corte Madera Ranch
^b*Sporobolus cryptandrus* (Torrey) A. Gray Sand dropseed
^a*Triticum aestivum* L. Laguna Lakes; Cereal wheat
^a*Vulpia bromoides* (L.) S.F. Gray
^a*Vulpia microstachys* (Nutt.) Benth. var. *ciliata* (Beal) Lonard & Gould
^a*Vulpia microstachys* (Nutt.) Benth. var. *confusa* (Piper) Lonard & Gould
^a*Vulpia microstachys* (Nutt.) Benth. var. *pauciflora* (Beal) Lonard & Gould
^a*Vulpia myuros* (L.) C. Gmelin var. *hirsuta* (Haeckell) Asch. & Grabner
^a*Vulpia octoflora* (Walter) Rydb. var. *hirtella* (Piper) Henrad
^a*Vulpia octoflora* (Walter) Rydb. var. *octoflora*

POTAMOGETONACEAE/Pondweed Family

- ^b*Potamogeton foliosus* Raf. var. *foliosus* Leafy pondweed
^b*Potamogeton illinoensis* Morong Shining pondweed
^b*Potamogeton nodosus* Poiret Long-leaf pondweed
^b*Potamogeton pectinatus* L. Fennel-leaf pondweed
^b*Potamogeton pusillus* L. var. *pusillus* Small pondweed

TYPHACEAE/Cat-tail Family

- ^b*Typha domingensis* Pers. Tule cat-tail
^b*Typha latifolia* L. Soft flag

ZANNICHELLIACEAE/ Horned pondweed Family

^b*Zannichellia palustris* L. Horned pondweed

DICOTYLEDONES/DICOTS

ACERACEAE/Maple Family

^a*Acer macrophyllum* Pursh Big-leaf maple

AIZOACEAE/Carpeweed Family

^a*Cypselea humifusa* Turpin

AMARANTHACEAE/Amaranth Family

^a*Amaranthus albus* L. White tumbleweed^a*Amaranthus blitoides* S. Watson Prostrate amaranth^a*Amaranthus californicus* (Moq.) S. Watson^a*Amaranthus retroflexus* L.

ANACARDIACEAE/Sumac Family

^a*Malosma laurina* (Nutt.) Abrams Laurel sumac^a*Rhus ovata* S. Watson Sugar bush^a*Rhus trilobata* Torrey & A. Gray Basket bush^a*Toxicodendron diversilobum* (Torrey & A. Gray) E. Greene

APIACEAE/UMBELLIFERAE/Carrot Family

^b*Angelica tomentosa* S. Watson^a*Anthriscus caucalis* M. Bieb. Cuyamaca Lake^a*Apiastrum angustifolium* Nutt. Mock parsley^a*Apium graveolens* L. Wild celery^b*Berula erecta* (Hudson) Cov. Cut-leaf water parsnip^a*Bowlesia incana* Ruiz Lopez & Pavon Corte Madera Ranch^b*Cicuta douglasii* (DC.) J. Coulter & Rose Water-hemlock^a*Conium maculatum* L. Mount Laguna; Poison hemlock^b*Daucus carota* L. Wild carrot^a*Daucus pusillus* Michaux Rattlesnake weed^b*Hydrocotyle ranunculoides* L.f. Marsh pennywort^b*Lomatium dasycarpum* (Torrey & A. Gray) J. Coulter & Rose subsp. *dasycarpum*
Bladder parsnip^b*Lomatium lucidum* (Torrey & A. Gray) Jepson Shiny lomatium^b*Oenanthe sarmentosa* J.S. Presl Pacific oenanthe^b*Osmorhiza brachypoda* Torrey California sweet-cicely^b*Osmorhiza chilensis* Hook. & Arn. Mountain sweet-cicely^b*Pastinaca sativa* L. Common parsnip^b*Perideridia parishii* (J. Coulter & Rose) Nelson & J.F. Macbr. subsp. *latifolia* (A.
Gray) Chuang & Constance^b*Sanicula arguta* J. Coulter & Rose Sharp-tooth sanicle^b*Sanicula bipinnatifida* Hook. Purple sanicle^b*Sanicula crassicaulis* DC. Pacific sanicle^b*Sanicula graveolens* DC. Sierra sanicle^b*Sanicula tuberosa* Torrey Turkey-pea sanicle

- ^b*Tauschia arguta* (Torrey & A. Gray) J.F. Macbr.
^b*Tauschia parishii* (J. Coulter & Rose) J.F. Macbr.
^a*Torilis arvensis* (Hudson) Link. Cuyamaca RSP
^a*Yabea microcarpa* (Hook. & Arn.) Koso-Polj.

APOCYNACEAE/Dogbane Family

- ^c*Apocynum androsaemifolium* L.
^b*Apocynum cannabinum* L. Indian hemp

ASCLEPIADACEAE/Milkweed Family

- ^b*Asclepias californica* E. Greene Woolly milkweed
^b*Asclepias eriocarpa* Benth. Indian milkweed
^b*Asclepias erosa* Torrey Desert milkweed
^b*Asclepias fascicularis* Decne. Narrow-leaf milkweed

ASTERACEAE/COMPOSITAE/Aster Family

- ^b*Achillea filipendulina*^a Lam. Pine Hills; Fern-leaf yarrow
^b*Achillea millefolium* L. Yarrow
^b*Acourtia microcephala* DC. Scapellote
^b*Agoseris grandiflora* (Nutt.) E. Greene
^a*Agoseris heterophylla* (Nutt.) E. Greene
^b*Agoseris retrorsa* (Benth.) E. Greene
^a*Ambrosia acanthicarpa* Hook. Annual bur-weed
^a*Ambrosia dumosa* (A. Gray) Payne White bur-sage
^b*Ambrosia psilostachya* DC. Western ragweed
^a*Anisocoma acaulis* Torrey & A. Gray Scale-bud
^a*Anthemis cotula*^a L. Mayweed
^a*Artemisia californica* Less. Coastal sagebrush
^b*Artemisia douglasiana* Besser Douglas mugwort
^b*Artemisia dracunculus* L. Tarragon
^a*Artemisia ludoviciana* Nutt. subsp. *albula* (Wooton) Keck
^a*Artemisia ludoviciana* Nutt. subsp. *ludoviciana* Common mugwort
^a*Artemisia tridentata* Nutt. subsp. *tridentata*
^b*Aster bernardinus* H.M. Hall San Bernardino aster
^b*Aster chilensis* Nees Chile aster
^a*Baccharis salicifolia* (Ruiz Lopez & Pavon) Pers. Mule-fat
^a*Baccharis sarothroides* A. Gray Descanso; Broom baccharis
^a*Baccharis sergiloides* A. Gray Squaw waterweed
^a*Bidens pilosa* L. var. *pilosa*^a Beggar's tick
^a*Blennosperma nanum* (Hook.) S.F. Blake var. *nanum*
^a*Brickellia californica* (Torrey & A. Gray) A. Gray
^a*Centaurea maculosa*^a Lam. Julian; Spotted knapweed
^a*Centaurea melitensis*^a L. Tocalote
^a*Centaurea solstitialis*^a L. Yellow star-thistle
^a*Chaenactis artemisiifolia* (A. Gray) A. Gray
^a*Chaenactis glabriuscula* DC. var. *glabriuscula* Golden curls
^a*Chaenactis glabriuscula* DC. var. *lanosa* (DC.) H.M. Hall
^c*Chaenactis parishii* A. Gray Parish's pincushion
^a*Chamomilla suaveolens*^a (Pursh) Rydb. Pincapple weed
^a*Chrysothamnus nauseosus* (Pallas) Britton subsp. *bernardinus* (H.M. Hall) H.M. Hall & Clements Gravelly clay soils, Cuyamaca Peak; Rabbit brush

- ¹*Chrysothamnus nauseosus* (Pallas) Britton subsp. *consimilis* (E. Greene) H.M. Hall & Clements
- ²*Cichorium intybus* L. Mediterranean chicory
- ³*Cirsium occidentale* (Nutt.) Jepson var. *californicum* (A. Gray) Keil & C. Turner
- ⁴*Cirsium scariosum* Nutt. Bird's nest thistle
- ⁵*Cnicus benedictus* L. Blessed thistle
- ⁶*Conyza canadensis* (L.) Cronq. Horseweed
- ⁷*Coreopsis californica* (Nutt.) H. Sharsm. var. *californica*
- ⁸*Ericameria brachylepis* (A. Gray) H.M. Hall
- ⁹*Ericameria cuneata* (A. Gray) McClatchie var. *macrocephala* Urb.
- ¹⁰*Ericameria linearifolia* (DC.) Urb. & J. Wussow
- ¹¹*Ericameria parishii* (E. Greene) H.M. Hall var. *parishii*
- ¹²*Ericameria pinifolia* (A. Gray) H.M. Hall
- ¹³*Erigeron divergens* Torrey & A. Gray Diffuse daisy
- ¹⁴*Erigeron foliosus* Nutt. var. *foliosus* Fleabane
- ¹⁵*Eriophyllum confertiflorum* (DC.) A. Gray var. *confertiflorum*
- ¹⁶*Eriophyllum wallacei* (A. Gray) A. Gray Wallace's woolly-daisy
- ¹⁷*Euthamia occidentalis* Nutt. Western goldenrod
- ¹⁸*Filago arizonica* A. Gray Poser and Viejas mountains (RSA-POM)
- ¹⁹*Filago californica* Nutt. California filago
- ²⁰*Filago gallica* L. Narrow-leaf filago
- ²¹*Geraea viscida* (A. Gray) S.F. Blake Sticky geraea
- ²²*Gnaphalium californicum* DC. Green everlasting
- ²³*Gnaphalium canescens* DC. subsp. *beneolens* (Davidson) Stebb. & Keil
- ²⁴*Gnaphalium canescens* DC. subsp. *microcephalum* (Nutt.) Stebb. & Keil
- ²⁵*Gnaphalium palustre* Nutt. Lowland cudweed
- ²⁶*Gnaphalium stramineum* Kunth Cotton-batting plant
- ²⁷*Grindelia hirsutula* Hook. & Arn. var. *hallii* (Steyerm.) M.A. Lane
- ²⁸*Gutierrezia microcephala* (DC.) A. Gray Small-headed matchweed
- ²⁹*Gutierrezia sarothrae* (Pursh) Britton & Rusby Broom matchweed
- ³⁰*Hazardia squarrosa* (Hook. & Arn.) E. Greene var. *grindeloides* (DC.) W. Clark
Saw-tooth goldenbush
- ³¹*Helenium puberulum* DC. Sneezeweed
- ³²*Helianthella californica* A. Gray var. *nevadensis* (E. Greene) Jepson Near summit of
Volcan Mountain
- ³³*Helianthus annuus* L. Western sunflower
- ³⁴*Helianthus californicus* DC. California sunflower
- ³⁵*Helianthus gracilentus* A. Gray Slender sunflower
- ³⁶*Hemizonia fasciculata* (DC.) Torrey & A. Gray Golden tarweed
- ³⁷*Heterotheca grandiflora* Nutt. Telegraph weed
- ³⁸*Heterotheca sessiliflora* (Nutt.) Shinnery subsp. *echioides* (Benth.) Semple
- ³⁹*Hieracium albiflorum* Hook. White hawkweed
- ⁴⁰*Hieracium argutum* Nutt. Golden hawkweed
- ⁴¹*Hulsea californica* Torrey & A. Gray San Diego hulsea
- ⁴²*Hymenopappus filifolius* Hook. var. *lugens* (E. Greene) Jepson
- ⁴³*Hymenothrix wrightii* A. Gray Wright's hymenothrix
- ⁴⁴*Hypochaeris glabra* L. Smooth cat's ear
- ⁴⁵*Isocoma menziesii* (Hook. & Arn.) Nesom var. *menziesii*
- ⁴⁶*Lactuca serriola* L. Prickly lettuce
- ⁴⁷*Lagophylla ramosissima* Nutt. subsp. *ramosissima* Common hareleaf
- ⁴⁸*Lasthenia californica* Lindley California goldfields

- ^a*Lasthenia glaberrima* A. DC. Corte Madera and Cuyamaca lakes
^a*Layia glandulosa* (Hook.) Hook. & Arn. White tidy-tips
^a*Layia platyglossa* Fischer & C. Meyer Meadow tidy-tips
^b*Lessingia filaginifolia* (Hook. & Arn.) M.A. Lane var. *filaginifolia* Mountain
 cudweed
^a*Lessingia glandulifera* A. Gray var. *glandulifera*
^b*Machaeranthera asteroides* (Torrey) E. Greene var. *lagunensis* (Keck) B. Turner
 Laguna aster
^u*Machaeranthera canescens* (Pursh) A. Gray var. *canescens*
^b*Machaeranthera juncea* (E. Greene) Shinners Poser Mountain
^a*Madia elegans* Lindley subsp. *elegans* Elegant madia
^a*Madia exigua* (Smith) A. Gray Pygmy madia
^a*Madia gracilis* (Smith) Keck Slender madia
^a*Madia minima* (A. Gray) Keck Small madia
^a*Malacothrix clevelandii* A. Gray
^a*Micropus californicus* Fischer & C. Meyer
^a*Microseris douglasii* (DC.) Schultz-Bip. subsp. *platycarpa* (A. Gray) Chambers
 Viejas Mountain
^a*Osmadenia tenella* Nutt. Rosinweed
^u*Pectis papposa* Harvey & A. Gray var. *papposa* Cinchweed
^a*Pentachaeta aurea* Nutt. Golden daisy
^a*Pluchea odorata* (L.) Cass. Salt-marsh fleabane
^a*Psilocarphus brevissimus* Nutt. var. *brevissimus* Woolly marbles
^a*Rafinesquia californica* Nutt. California chicory
^a*Senecio flaccidus* Less. var. *douglasii* (DC.) B. Turner & T. Barkley Sand-wash
 butterweed
^b*Solidago californica* Nutt. California goldenrod
^b*Solidago confinis* Nutt. Marsh goldenrod
^a*Sonchus asper* (L.) Hill subsp. *asper* Spiny sow thistle
^a*Sonchus oleraceus* L. Common sow thistle
^a*Stebbinoseris heterocarpa* (Nutt.) Chambers Viejas Mountain
^a*Stephanomeria exigua* Nutt. subsp. *deanei* (J.F. Macbr.) Gottlieb
^a*Stephanomeria virgata* Benth. subsp. *pleurocarpa* (E. Greene) Gottlieb Virgate
 stephanomeria
^a*Stylocline gnaphalioides* Nutt. Everlasting nest-straw
^b*Taraxacum officinale* Wigg. Common dandelion
^a*Tetradymia canescens* DC. Monument Peak; Cotton-thorn
^a*Tetradymia comosa* A. Gray
^a*Tragopogon dubius* Scop. Goat's beard
^a*Uropappus lindleyi* (DC.) Nutt. Silver puffs
^b*Wyethia ovata* Torrey & A. Gray Mule's ears
^a*Xanthium strumarium* L. Cocklebur

BERBERIDACEAE/Barberry Family

- ^a*Berberis aquifolium* Pursh var. *dictyota* (Jepson) Jepson
^a*Berberis aquifolium* Pursh var. *repens* (Lindley) H. Scoggan
^a*Berberis pinnata* Lagasca subsp. *pinnata* Shiny-leaf barberry

BETULACEAE/Alder Family

- ¹*Alnus rhombifolia* Nutt. White alder

BIGNONIACEAE/Bignonia Family

¹*Chilopsis linearis* (Cav.) Sweet subsp. *arcuata* (Fosb.) Henrickson Desert willow

BORAGINACEAE/Borage Family

²*Amsinckia menziesii* (Lehm.) Nelson & J.F. Macbr. var. *intermedia* (Fischer & C. Meyer) Ganders

²*Cryptantha affinis* (A. Gray) E. Greene Common cryptantha

²*Cryptantha barbiger* (A. Gray) E. Greene

²*Cryptantha flaccida* (Lehm.) E. Greene

²*Cryptantha intermedia* (A. Gray) E. Greene Nievitans

²*Cryptantha micrantha* (Torrey) I.M. Johnston

²*Cryptantha micromeres* (A. Gray) E. Greene

²*Cryptantha microstachys* (A. Gray) E. Greene

²*Cryptantha muricata* (Hook. & Arn.) Nelson & J.F. Macbr.

²*Cryptantha simulans* E. Greene

²*Harpagonella palmeri* A. Gray Poser and Viejas mountains

¹*Heliotropium curassavicum* L. Salt heliotrope

²*Pectocarya penicillata* (Hook. & Arn.) A.DC.

²*Pectocarya setosa* A. Gray

²*Plagiobothrys arizonicus* (A. Gray) A. Gray

²*Plagiobothrys bracteatus* (J. Howell) I.M. Johnston

²*Plagiobothrys canescens* Benth.

²*Plagiobothrys collinus* (Philbr.) I.M. Johnston var. *fulvescens* (I.M. Johnston) Higgins

²*Plagiobothrys hispidulus* (E. Greene) I.M. Johnston

¹*Plagiobothrys nothofulvus* (A. Gray) A. Gray

²*Plagiobothrys tenellus* (Nutt.) A. Gray

²*Plagiobothrys trachycarpus* (A. Gray) I.M. Johnston

BRASSICACEAE/CRUCIFERAE/Mustard Family

¹*Arabis glabra* (L.) Benth. var. *glabra** Tower mustard

¹*Arabis holboellii* Hornem. var. *pinetorum* (Tidestrom) Rollins

¹*Arabis perennans* S. Watson Nevada rock-cress

¹*Arabis pulchra* M.E. Jones var. *gracilis* M.E. Jones

¹*Arabis pulchra* M.E. Jones var. *pulchra* Beautiful rock-cress

¹*Arabis sparsiflora* Torrey & A. Gray var. *californica* Rollins

²*Athysanus pusillus* (Hook.) E. Greene

¹*Barbarea orthoceras* Ledeb. Erect-pod winter-cress

²*Brassica rapa* L. Field mustard

²*Camelina microcarpa** Andrz. Cuyamaca RSP; False flax

²*Capsella bursa-pastoris** (L.) Medikus Shepherd's purse

¹*Cardamine californica* (Torrey & A. Gray) E. Greene var. *californica* Milkmaids

²*Caulanthus heterophyllus* (Nutt.) Payson var. *heterophyllus* [*C. stenocarpus* Payson] Poser Mountain

²*Caulanthus simulans* Payson Garnet Mountain

¹*Descurainia incana* (Fischer & C. Meyer) Dorn

²*Descurainia pinnata* (Walter) Britton subsp. *glabra* (Wooton & Standley) Detl.

²*Descurainia pinnata* (Walter) Britton subsp. *halictorum* (Cockerell) Detl.

²*Descurainia pinnata* (Walter) Britton subsp. *menziesii* (DC.) Detl.

¹*Descurainia sophia** (L.) Webb Fine-leaf tansy-mustard

²*Draba cuneifolia* Torrey & A. Gray Desert whitlow

- ^a*Draba verna* L. Vernal whitlow
- ^b*Erysimum capitatum* (Douglas) E. Greene subsp. *capitatum*
- ^a*Guillenia lasiophylla* (Hook. & Arn.) E. Greene
- ^a*Hirschfeldia incana* (L.) Lagr.-Fossat Short-pod mustard
- ^b*Lepidium campestre* (L.) R.Br.
- ^a*Lepidium lasiocarpum* Torrey & A. Gray var. *lasiocarpum*
- ^a*Lepidium nitidum* Torrey & A. Gray var. *nitidum*
- ^b*Lepidium perfoliatum* L. Laguna Mountains
- ^a*Lepidium virginicum* L. var. *pubescens* (E. Greene) Thell.
- ^a*Raphanus raphanistrum* L. Mount Laguna; Jointed charlock
- ^b*Rorippa curvisiliqua* (Hook.) Britton Prostrate yellow-cress
- ^b*Rorippa nasturtium-aquaticum* (L.) Hayek White water-cress
- ^b*Rorippa sinuata* (Torrey & A. Gray) A. Hitchc.
- ^a*Rorippa tenerrima* E. Greene Lyrate-leaf yellow-cress
- ^a*Sisymbrium altissimum* L. Tall rocket
- ^a*Sisymbrium officinale* L. Tumble mustard
- ^c*Streptanthus bernardinus* (E. Greene) Parish Laguna jewelflower
- ^c*Streptanthus campestris* S. Watson Southern jewelflower
- ^a*Thlaspi arvense* L. Corte Madera Ranch; Penny-cress
- ^a*Thysanocarpus curvipes* Hook. Lacepod
- ^a*Thysanocarpus laciniatus* Torrey & A. Gray Fringedpod
- ^a*Tropidocarpum gracile* Hook. Descanso; Slender dobie-pod

CACTACEAE/Cactus Family

- ^a*Echinocereus engelmannii* (Engelm.) Lemaire Engelmann hedgehog
- ^a*Opuntia basilaris* Engelm. & J. Bigelow var. *basilaris*
- ^a*Opuntia chlorotica* (Engelm.) J. Bigelow Pancake pear
- ^a*Opuntia parryi* Engelm. Cane cholla
- ^a*Opuntia phaeacantha* Engelm. Engelmann prickly-pear
- ^a*Opuntia* × *vaseyi* (J. Coulter) Britton & Rose Vasey pear

CALLITRICHACEAE/Water-starwort Family

- ^a*Callitriche heterophylla* Pursh var. *bolanderi* (Hegn.) Fassett
- ^a*Callitriche marginata* Torrey
- ^a*Callitriche verna* L.

CAMPANULACEAE/Bell-flower Family

- ^a*Downingia concolor* E. Greene var. *brevior* McVaugh
- ^a*Githopsis diffusa* A. Gray subsp. *caudata* (Ewan) N. Morin
- ^a*Githopsis diffusa* A. Gray subsp. *filicaulis* (Ewan) N. Morin
- ^a*Heterocodon rariflorum* Nutt.
- ^b*Lobelia cardinalis* L. var. *pseudosplendens* McVaugh
- ^b*Lobelia dumii* E. Greene var. *serrata* (A. Gray) McVaugh
- ^a*Nemacladus longiflorus* A. Gray var. *longiflorus*
- ^a*Nemacladus pinuatifidus* E. Greene
- ^a*Nemacladus ramosissimus* Nutt.
- ^a*Triodanis biflora* (Ruiz Lopez & Pavon) E. Greene

CAPRIFOLIACEAE/Honeysuckle Family

- ^a*Lonicera subspicata* Hook. & Arn. var. *denudata* Rehder
- ^a*Sambucus mexicana* C. Presl Blue elderberry

^a*Symphoricarpos mollis* Nutt. Spreading snowberry

^a*Symphoricarpos rotundifolius* A. Gray var. *parishii* (Rydb.) Dempster Parish's snowberry

CARYOPHYLLACEAE/Pink Family

^b*Cerastium fontanum* Baumg. subsp. *vulgare*^{*} (Hartman) Greuter & Burdet Mouse-ear chickweed

^a*Cerastium glomeratum*^{*} Thuill.

^a*Dianthus armeria* L. subsp. *armeria*^{*} Volcan Mountain

^a*Loeflingia squarrosa* (Nutt.) var. *squarrosa* Poser Mountain

^a*Minuartia douglasii* (Torrey & A. Gray) Mattf. Sandwort

^a*Minuartia pusilla* (S. Watson) Mattf. Little sandwort

^a*Moehringia macrophylla* (Hook.) Fenzl

^a*Sagina decumbens* (Elliot) Torrey & A. Gray subsp. *occidentalis* (S. Watson) G. Crow Pearlwort

^b*Saponaria officinalis*^{*} L. Bouncing bet

^a*Silene antirrhina* L. Snapdragon catchfly

^a*Silene armeria*^{*} L.

^a*Silene gallica*^{*} L. Windmill pink

^b*Silene laciniata* Cav. subsp. *major* C. Hitchc. & Maguire

^b*Silene lemmonii* S. Watson Lemmon's pink

^a*Silene multinervia* S. Watson Poser Mountain

^b*Silene verecunda* S. Watson subsp. *platyota* (S. Watson) C. Hitchc. & Maguire

^a*Stellaria media*^{*} (L.) Villars Common chickweed

^a*Stellaria nitens* Nutt. Shiny chickweed

CELASTRACEAE/Staff-tree Family

^a*Euonymus occidentalis* Torrey var. *parishii* (Trel.) Jepson

CERATOPHYLLACEAE/Hornwort Family

^a*Ceratophyllum demersum* L. Corte Madera Ranch; Hornwort

CHENOPODIACEAE/Goosefoot Family

^a*Atriplex rosea*^{*} L. Redscale

^a*Chenopodium album*^{*} L. White lamb's quarters

^a*Chenopodium berlandieri* Moq.

^a*Chenopodium californicum* (S. Watson) S. Watson

^a*Chenopodium hians* Standley

^a*Chenopodium incognitum* Wahl

^a*Salsola tragus*^{*} L. Russian thistle

CISTACEAE/Rock-rose Family

^b*Helianthemum scoparium* Nutt. Sun-rose

CONVOLVULACEAE/Morning-glory Family

^b*Calystegia longipes* (S. Watson) Brummit Piute morning-glory

^b*Calystegia macrostegia* (E. Greene) Brummit subsp. *arida* (E. Greene) Brummit

^b*Calystegia occidentalis* (A. Gray) Brummit subsp. *fulcrata* (A. Gray) Brummit Sonora morning glory

CORNACEAE/Dogwood Family

^a*Cornus nuttallii* Audubon Pacific dogwood

^a*Cornus sericea* L. subsp. *occidentalis* (Torrey & A. Gray) Fosberg

CRASSULACEAE/Stonecrop Family

^a*Crassula aquatica* (L.) Schonl.

^a*Crassula connata* (Ruiz Lopez & Pavon) A. Berger Pygmy stonecrop

^b*Dudleya abramsii* Rose subsp. *abramsii* Abram's dudleya

^b*Dudleya edulis* (Nutt.) Moran Ladyfingers

^b*Dudleya lanceolata* (Nutt.) Britton & Rose

^b*Dudleya pulverulenta* (Nutt.) Britton & Rose subsp. *arizonica* (Rose) Moran Laguna dudleya

^b*Dudleya pulverulenta* (Nutt.) Britton & Rose subsp. *pulverulenta* Chalk dudleya

^b*Dudleya saxosa* (M.E. Jones) Britton & Rose subsp. *aloides* (Rose) Moran [*Dudleya alainae* Reiser]

CUCURBITACEAE/Gourd Family

^a*Cucurbita foetidissima* Kunth Calabazilla

^b*Marah macrocarpus* (E. Greene) E. Greene var. *macrocarpus* Wild cucumber

CUSCUTACEAE/Dodder Family

^a*Cuscuta californica* Hook. & Arn. var. *californica* Witch's hair

^a*Cuscuta indecora* Choisy var. *indecora*

^a*Cuscuta subinclusa* Durand & Hilg. Canyon dodder

DATISCEACEAE/Durango Root Family

^b*Datisca glomerata* (C. Presl) Baillon Durango root

DIPSACACEAE/Teasel Family

^b*Scabiosa atropurpurea* L. Pincushions

ELATINACEAE/Waterwort Family

^a*Elatine brachysperma* A. Gray Corte Madera Ranch

^a*Elatine californica* A. Gray California waterwort

ERICACEAE/Manzanita Family

^a*Arctostaphylos glandulosa* Eastw. subsp. *adamsii* (Munz) Munz

^a*Arctostaphylos glandulosa* Eastw. subsp. *zacaensis* (Eastw.) P. Wells

^a*Arctostaphylos glauca* Lindley Big-berry manzanita

^a*Arctostaphylos pringlei* C. Parry subsp. *drupacea* (C. Parry) P. Wells Cuyamaca manzanita

^a*Arctostaphylos pungens* Kunth Mexican manzanita

^b*Pyrola picta* Smith Wintergreen

^a*Rhododendron occidentale* (Torrey & A. Gray) A. Gray

^a*Xylococcus bicolor* Nutt. Mission manzanita

EUPHORBIACEAE/Spurge Family

^b*Chamaesyce albomarginata* (Torrey & A. Gray) Small

^a*Chamaesyce maculata* (L.) Small Spotted spurge

^a*Chamaesyce micromera* (Engelm.) Wootton & Standley

- ^a*Chamaesyce serpyllifolia* (Pers.) Small subsp. *hirtula* (S. Watson) Koutnik Pine sand-mat
- ^b*Croton californicus* Muell. Arg. California croton
- ^a*Eremocarpus setiger* (Hook.) Benth. Doveweed
- ^b*Euphorbia palmeri* S. Watson Wood spurge
- ^a*Euphorbia spathulata* Lam. Cuyamaca RSP

FABACEAE/LEGUMINOSAE/Pea Family

- ^a*Acacia greggii* A. Gray Cat-claw acacia
- ^a*Amorpha fruticosa* L. False indigo
- ^b*Astragalus douglasii* (Torrey & A. Gray) A. Gray var. *parishii* (A. Gray) M.E. Jones
- ^a*Astragalus gambelianus* E. Sheldon Poser Mountain
- ^a*Astragalus oocarpus* A. Gray Descanso milkvetch
- ^a*Astragalus palmeri* A. Gray Palmer's locoweed
- ^a*Cercis occidentalis* Torrey Western redbud
- ^b*Hoita macrostachya* (DC.) Rydb. Leather root
- ^b*Hoita orbicularis* (Lindley) Rydb.
- ^b*Lathyrus latifolius* L.
- ^b*Lathyrus vestitus* Nutt. var. *alefeldii* (T. White) Isley
- ^b*Lotus argophyllus* (A. Gray) E. Greene var. *argophyllus*
- ^a*Lotus crassifolius* (Benth.) E. Greene var. *crassifolius*
- ^b*Lotus grandiflorus* (Benth.) E. Greene var. *grandiflorus*
- ^a*Lotus hamatus* E. Greene
- ^b*Lotus heermannii* (Durand & Hilg.) E. Greene var. *heermannii*
- ^a*Lotus humistratus* E. Greene
- ^b*Lotus micranthus* Benth.
- ^b*Lotus nevadensis* (S. Watson) E. Greene var. *nevadensis*
- ^b*Lotus oblongifolius* (Benth.) E. Greene var. *oblongifolius*
- ^a*Lotus purshianus* (Benth.) Clements & E.G. Clements var. *purshianus* Spanish clover
- ^a*Lotus saluginosus* E. Greene var. *brevivexillus* Otley
- ^a*Lotus saluginosus* E. Greene var. *saluginosus*
- ^b*Lotus scoparius* (Nutt.) Otley var. *brevialatus* Otley
- ^b*Lotus scoparius* (Nutt.) Otley var. *scoparius* Deerweed
- ^a*Lotus strigosus* (Nutt.) E. Greene Bishop lotus
- ^a*Lotus wrangelianus* Fischer & C. Meyer
- ^a*Lupinus albifrons* Benth. var. *albifrons*
- ^a*Lupinus bicolor* Lindley Dove lupine
- ^a*Lupinus concinnus* J. Agardh
- ^a*Lupinus excubitus* M.E. Jones var. *austromontanus* (A.A. Heller) C.P. Smith Grape soda lupine
- ^a*Lupinus excubitus* M.E. Jones var. *hallii* (Abrams) C.P. Smith
- ^b*Lupinus formosus* E. Greene var. *formosus*
- ^a*Lupinus hirsutissimus* Benth. Stinging lupine
- ^b*Lupinus latifolius* J. Agardh var. *parishii* C.P. Smith
- ^a*Lupinus longifolius* (S. Watson) Abrams Mesa Grande
- ^a*Lupinus microcarpus* Sims var. *densiflorus* (Benth.) Jepson
- ^a*Lupinus sparsiflorus* Benth.
- ^a*Lupinus truncatus* Hook. & Arn. Chaparral lupine
- ^a*Medicago lupulina* L. Black medick
- ^a*Medicago polymorpha* L. Toothed bur-clover

- ^h*Medicago sativa* L. Alfalfa
^a*Melilotus alba* Medikus White sweet-clover
^a*Melilotus indica* (L.) All. Indian sweet-clover
^a*Pickeringia montana* Nutt. var. *tomentosa* (Abrams) I.M. Johnston Corte Madera, Viejas Mountains
^h*Rupertia rigida* (Parish) Grimes Parish's rupertia
^a*Spartium junceum* L. Spanish broom
^h*Thermopsis macrophylla* Hook. & Arn. var. *semota* Jepson
^a*Trifolium albopurpureum* Torrey & A. Gray Rancheria clover
^a*Trifolium ciliolatum* Benth. Tree clover
^a*Trifolium depauperatum* Desv. var. *truncatum* (E. Greene) Isley
^a*Trifolium gracilentum* Torrey & A. Gray var. *gracilentum*
^a*Trifolium microcephalum* Pursh
^a*Trifolium obtusiflorum* Hook. & Arn. Creek clover
^h*Trifolium pratense* L. Red clover
^u*Trifolium variegatum* Nutt. White-tip clover
^a*Trifolium willdenovii* Sprengel Tom-cat clover
^h*Trifolium wormskioldii* Lehm. Cow clover
^h*Vicia americana* Willd. var. *americana* Sierra vetch
^a*Vicia hassei* S. Watson Slender vetch
^a*Vicia ludoviciana* Nutt. var. *ludoviciana*
^a*Vicia villosa* Roth subsp. *varia* (Host) Corbiere

FAGACEAE/Oak Family

- ^l*Quercus agrifolia* Nee var. *agrifolia* California live oak
^l*Quercus agrifolia* Nee var. *oxyadenia* (Torrey) J. Howell
^l*Quercus berberidifolia* Liebm. [*Q. dunosa* Nutt. misappl.]
^l*Quercus chysolepis* Liebm. Canyon oak
^o*Quercus cornelius-mulleri* K. Nixon & K. Steele
^l*Quercus engelmannii* E. Greene Mesa blue oak
^l*Quercus kelloggii* Newb. California black oak
^o*Quercus wislizenii* A.DC. var. *frutescens* Engelm.

GARRYACEAE/Silk-tassel Family

- ^o*Garrya flavescens* S. Watson Silk-tassel
^o*Garrya fremontii* Torrey
^o*Garrya veitchii* Kellogg

GENTIANACEAE/Gentian Family

- ^o*Centaurium exaltatum* (Griseb.) Piper Centaury
^o*Centaurium venustum* (A. Gray) Robinson Canchalagua
^o*Eustoma exaltatum* (L.) Don Desert gentian
^o*Swertia parryi* (Torrey) Kuntze Parry's green gentian

GERANIACEAE/Geranium Family

- ^o*Erodium botrys* (Cav.) Bertol. Long-beak filaree
^o*Erodium cicutarium* (L.) L'Her. Red-stem filaree
^h*Geranium californicum* G. Jones & F. Jones Agua Dulce Ravine
^o*Geranium carolinianum* L. Carolina geranium

GROSSULARIAEAE/Currant Family

- ^a*Ribes canthariforme* Wiggins Moreno currant
- ^a*Ribes indecorum* Eastw. Winter currant
- ^a*Ribes nevadense* Kellogg Sierra currant
- ^a*Ribes quercetorum* E. Greene Oak gooseberry
- ^a*Ribes roezlii* Reigl. var. *roezlii*

HYDROPHYLLACEAE/Waterleaf Family

- ^a*Emmenanthe penduliflora* Benth. Whispering bells
- ^a*Eriodictyon trichocalyx* A.A. Heller var. *lanatum* (Brand) Jepson
- ^a*Eucrypta chrysanthemifolia* (Benth.) E. Greene var. *chrysanthemifolia*
- ^a*Nemophila menziesii* Hook. & Arn. var. *integrifolia* Parish
- ^a*Nemophila menziesii* Hook. & Arn. var. *menziesii*
- ^a*Nemophila pedunculata* Benth. Cuyamaca Lake
- ^a*Phacelia brachyloba* (Benth.) A. Gray
- ^a*Phacelia cicutaria* E. Greene var. *hispida* (A. Gray) J. Howell
- ^a*Phacelia curvipes* S. Watson
- ^a*Phacelia davidsonii* A. Gray
- ^a*Phacelia distans* Benth. Wild heliotrope
- ^b*Phacelia imbricata* E. Greene subsp. *imbricata*
- ^b*Phacelia imbricata* E. Greene subsp. *patula* (Brand) Heckard
- ^a*Phacelia parryi* Torrey
- ^b*Phacelia ramosissima* Lehm. var. *latifolia* (Torrey) Cronq.
- ^a*Turricula parryi* (A. Gray) J.F. Macbr. Poodle-dog bush

HYPERICACEAE/St. John's Wort Family

- ^a*Hypericum anagaloides* Cham. & Schldl. Tinker's penny
- ^b*Hypericum formosum* Kunth var. *scouleri* (Hook.) J. Coulter
- ^b*Hypericum perforatum* L. Klamath weed

LAMIACEAE/LABIATAE/Mint Family

- ^a*Acanthomintha ilicifolia* (A. Gray) A. Gray San Diego thornmint
- ^a*Lanium amplexicaule* L. Henbit
- ^b*Marrubium vulgare* L. Horehound
- ^b*Mentha arvensis* L. Tule mint
- ^b*Mentha × piperita* L. Corte Madera Ranch; Peppermint
- ^b*Mentha spicata* L. var. *spicata* Spearmint
- ^c*Monardella hypoleuca* A. Gray subsp. *lanata* (Abrams) Munz
- ^a*Monardella lanceolata* A. Gray Mustang mint
- ^c*Monardella linoidea* A. Gray subsp. *linoidea*
- ^c*Monardella macrantha* A. Gray Scarlet monardella
- ^c*Monardella nana* A. Gray subsp. *leptosiphon* (Torrey) Abrams
- ^c*Monardella nana* A. Gray subsp. *nana*
- ^b*Pycnanthemum californicum* Torrey Mountain mint
- ^c*Salvia apiana* Jepson White sage
- ^a*Salvia clevelandii* (A. Gray) E. Greene Fragrant sage
- ^a*Salvia columbariae* Benth. Chia
- ^c*Salvia sonomensis* E. Greene Viejas Mountain, Cuyamaca Peak
- ^b*Scutellaria bolanderi* A. Gray subsp. *austromontana* Epling
- ^b*Scutellaria tuberosa* Benth. Blue skullcap
- ^b*Stachys ajugoides* Benth. var. *rigida* Jepson & Hoover

- ^a*Trichostema austromontanum* Harlan Lewis subsp. *austromontanum*
^a*Trichostema lanceolatum* Benth. Vinegar weed
^a*Trichostema parishii* Vasey Mountain blue-curls

Lauraceae/Laurel Family

- ¹*Umbellularia californica* (Hook. & Arn.) Nutt. California bay

Limnanthaceae/Meadowfoam Family

- ^a*Limnanthes gracilis* Howell subsp. *parishii* (Jepson) Beauchamp

Linaceae/Flax Family

- ^a*Hesperolinon micranthum* (A. Gray) Small Dwarf flax
^b*Linum lewisii* Pursh var. *lewisii* Blue flax

Loasaceae/Stick-leaf Family

- ^a*Mentzelia affinis* E. Greene Blazing star
^a*Mentzelia montana* (Davidson) Davidson
^a*Mentzelia veatchiana* Kellogg

Lythraceae/Loosestrife Family

- ^b*Lythrum californicum* Torrey & A. Gray
^a*Lythrum hyssopifolium* L. Grass poly

Malvaceae/Mallow Family

- ^a*Malacothamnus densiflorus* (S. Watson) E. Greene Bushmallow
^a*Malva parviflora* L. Cheeseweed
^b*Sidalcea malvaeflora* (DC.) Benth. subsp. *sparsifolia* C. Hitchc.
^b*Sphaeralcea ambigua* A. Gray var. *roseacea* (Munz & I.M. Johnston) Kearney Mason
 Valley; Rose desert mallow

Meliaceae

- ¹*Melia azedarach* L. Banner China berry

Nelumbonaceae

- ^b*Nelumbo lutea* (Willd.) Pers. American water-lily

Nyctaginaceae/Four-o'clock Family

- ^a*Boerhavia intermedia* M.E. Jones Orillamme
^b*Mirabilis californica* A. Gray Wishbone bush
^b*Mirabilis multiflora* (Torrey) A. Gray var. *pubescens* S. Watson

Oleaceae/Olive Family

- ¹*Fraxinus velutina* Torrey Velvet ash

Onagraceae/Evening Primrose Family

- ^a*Camissonia bistorta* (Torrey & A. Gray) Raven
^a*Camissonia californica* (Torrey & A. Gray) Raven False mustard
^a*Camissonia confusa* Raven
^a*Camissonia hirtella* (E. Greene) Raven
^a*Camissonia ignota* (Jepson) Raven
^a*Camissonia pallida* (Abrams) Raven subsp. *pallida*

- ^a*Camissonia strigulosa* (Fischer & C. Meyer) Raven
^a*Clarkia delicata* (Abrams) Nelson & J.F. Macbr. Corte Madera
^a*Clarkia purpurea* (Curtis) Nelson & J.F. Macbr. subsp. *quadrivulnera* (Douglas) Harlan Lewis & M. Lewis
^a*Clarkia rhomboidea* Douglas Diamond clarkia
^a*Clarkia similis* Harlan Lewis & Ernst Canyon clarkia
^a*Epilobium brachycarpum* C. Presl Summer cottonweed
^c*Epilobium canum* (E. Greene) Raven subsp. *canum*
^c*Epilobium canum* (E. Greene) Raven subsp. *latifolium* (Hook.) Raven
^b*Epilobium ciliatum* Raf. subsp. *ciliatum*
^a*Epilobium densiflorum* (Lindley) P. Hoch & Raven
^a*Epilobium minutum* Lehm. Gravelly clay soils, Cuyamaca Peak
^a*Epilobium pygmaeum* (Speg.) P. Hoch & Raven
^b*Gaura sinuata* Ser. Butterfly weed
^a*Gayophytum diffusum* Torrey & A. Gray subsp. *parviflorum* Harlan Lewis & J. Szweykowski
^a*Gayophytum humile* A.L. Juss. Cuyamaca Peak, Cuyamaca Lake
^a*Gayophytum oligospermum* Harlan Lewis & J. Szweykowski
^b*Ludwigia repens* Forster East of Ramona; Water primrose
^b*Oenothera californica* (S. Watson) S. Watson subsp. *californica*
^b*Oenothera elata* Kunth subsp. *hirsutissima* (S. Watson) W. Dietr.
^b*Oenothera elata* Kunth subsp. *hookeri* (Torrey & A. Gray) W. Dietr. & W.L. Wagner Anahuac School; Great yellow evening primrose

OROBANCHACEAE/Broom-rape Family

- ^a*Orobanche bulbosa* G. Beck Chaparral broom-rape
^a*Orobanche fasciculata* Nutt. Pine broom-rape
^a*Orobanche parishii* (Jepson) Heckard subsp. *parishii*

PAEONIACEAE/Peony Family

- ^b*Paeonia californica* Torrey & A. Gray California peony

PAPAVERACEAE/Poppy Family

- ^a*Argemone munita* Durand & Hilgard Prickly poppy
^a*Dendromecon rigida* Benth. Bush poppy
^b*Dicentra chrysantha* (Hook. & Arn.) Walp. Golden ear-drops
^b*Eschscholzia californica* Cham. California poppy
^a*Meconella californica* Torrey (Descanso, location doubtful)
^a*Meconella denticulata* E. Greene Mesa Grande (UCR)
^a*Papaver californicum* A. Gray Poser Mountain; Fire poppy
^a*Platystemon californicus* Benth. Cream-cups
^a*Ronneya trichocalyx* Eastw. Matilija poppy

PLANTAGINACEAE/Plantain Family

- ^b*Plantago lanceolata* L. Rib-grass
^b*Plantago major* L. Common plantain
^a*Plantago patagonica* Jacq. Indian plantain

PLATANACEAE/Sycamore Family

- ^a*Platanus racemosa* Nutt. Western sycamore

POLEMONIACEAE/Phlox Family

- ¹*Allophyllum gilioides* (Benth.) A.D. Grant & V. Grant subsp. *gilioides* Straggling false gilia
- ²*Allophyllum gilioides* (Benth.) A.D. Grant & V. Grant subsp. *violaceum* (A.A. Heller) Day
- ³*Allophyllum glutinosum* (Benth.) A.D. Grant & V. Grant
- ⁴*Collomia grandiflora* Lindley Grand phlox
- ⁵*Eriastrum densifolium* (Benth.) H. Mason subsp. *austromontanum* (Craig) H. Mason Chaparral woolly-star
- ⁶*Eriastrum filifolium* (Nutt.) Wootton & Standley
- ⁷*Eriastrum sapphirinum* (Eastw.) H. Mason Sapphire woolly-star
- ⁸*Gilia angelensis* V. Grant Grassland gilia
- ⁹*Gilia australis* (H. Mason & A.D. Grant) V. Grant & A.D. Grant
- ¹⁰*Gilia capitata* Sims subsp. *abrotanifolia* (E. Greene) V. Grant
- ¹¹*Gilia caruifolia* Abrams Garnet Peak, Stonewall Peak
- ¹²*Gilia clivorum* (Jepson) V. Grant
- ¹³*Gilia diegensis* (Munz) A.D. Grant & V. Grant
- ¹⁴*Gilia ochroleuca* M.E. Jones subsp. *exilis* (A. Gray) A.D. Grant & V. Grant
- ¹⁵*Linanthus ciliatus* (Benth.) E. Greene Whisker-brush
- ¹⁶*Linanthus dianthiflorus* (Benth.) E. Greene Ground pink
- ¹⁷*Linanthus dichotomus* Benth. Cuyamaca Lake; Evening snow
- ¹⁸*Linanthus floribundus* (A. Gray) Milliken subsp. *floribundus*
- ¹⁹*Linanthus floribundus* (A. Gray) Milliken subsp. *glaber* R. Patterson Summer snow
- ²⁰*Linanthus lemmonii* (A. Gray) E. Greene Julian
- ²¹*Linanthus liniflorus* (Benth.) E. Greene
- ²²*Linanthus orcuttii* (C. Parry & A. Gray) Jepson
- ²³*Linanthus parviflorus* (Benth.) E. Greene Baby stars
- ²⁴*Linanthus pygmaeus* (Brand) J. Howell subsp. *continentalis* Raven
- ²⁵*Navarretia atractyloides* (Benth.) Hook. & Arn. Skunkweed
- ²⁶*Navarretia intertexta* (Benth.) Hook.
- ²⁷*Navarretia peninsularis* E. Greene Gravelly clay soils; Cuyamaca Lake, Cuyamaca Peak
- ²⁸*Navarretia tagetina* E. Greene Meadows; Cuyamaca Lake
- ²⁹*Phlox austromontana* Cov. Prickly phlox
- ³⁰*Phlox gracilis* E. Greene Slender phlox

POLYGALACEAE/Milkwort Family

- ¹*Polygala cornuta* Kellogg var. *fishiae* (C. Parry) Jepson Vicjas Mountain

POLYGONACEAE/Buckwheat Family

- ¹*Chorizanthe fimbriata* Nutt. var. *laciniata* (Torrey) Jepson
- ²*Chorizanthe leptotheca* Goodman Corte Madera Ranch
- ³*Chorizanthe polygonoides* Torrey & A. Gray var. *longispina* (Goodman) Munz Knotweed spinneflower
- ⁴*Chorizanthe procumbens* Nutt. Poser Mountain
- ⁵*Chorizanthe stictoides* Benth. Turkish rugging
- ⁶*Eriogonum apiculatum* S. Watson
- ⁷*Eriogonum davidsonii* E. Greene
- ⁸*Eriogonum elongatum* Benth. var. *elongatum*
- ⁹*Eriogonum fasciculatum* Benth. var. *fasciculatum* Corte Madera Ranch; Flat-top buckwheat

- ^a*Eriogonum fasciculatum* Benth. var. *foliosum* (Nutt.) Abrams
^a*Eriogonum fasciculatum* Benth. var. *polifolium* (A.DC.) Torrey & A. Gray
^a*Eriogonum foliosum* S. Watson Leafy buckwheat
^a*Eriogonum gracile* Benth. var. *gracile* Slender buckwheat
^a*Eriogonum molestum* E. Greene
^b*Eriogonum nudum* Benth. var. *pauciflorum* S. Watson
^a*Eriogonum parishii* S. Watson
^a*Eriogonum plunatella* Durand & Hilgard
^a*Eriogonum thurberi* Torrey
^c*Eriogonum umbellatum* Torrey var. *munzii* Rev. Mount Laguna
^c*Eriogonum wrightii* Benth. var. *membranaceum* Jepson
^a*Oxytheca trilobata* A. Gray Three-lobed spineflower
^b*Polygonum amphibium* L. var. var. *emersum* Michaux Smartweed
^b*Polygonum amphibium* L. var. *stipulaceum* Coleman
^a*Polygonum arenastrum* Boreau
^a*Polygonum douglasii* E. Greene subsp. *douglasii*
^a*Polygonum douglasii* E. Greene subsp. *johnstonii* (Munz) J. Hickman
^a*Polygonum lapathifolium* L. Willow smartweed
^a*Polygonum parryi* E. Greene Gravelly clay soils; Cuyamaca Lake, Cuyamaca Peak;
 Parry knotweed
^a*Polygonum ramosissimum* Michaux Bushy knotweed
^a*Pterostegia drymarioides* Fischer & C. Meyer Hair-net
^b*Rumex acetosella* L. Red sorrel
^b*Rumex conglomeratus* Murray Green dock
^b*Rumex crispus* L. Curly dock
^b*Rumex salicifolius* J.A. Weinm. var. *denticulatus* Torrey
^b*Rumex salicifolius* J.A. Weinm. var. *salicifolius* Willow dock

PORTULACACEAE/Purslane Family

- ^a*Calandrinia ciliata* (Ruiz Lopez & Pavon) DC. Red maids
^a*Calyptidium monandrum* Nutt. Sanderess
^a*Claytonia exigua* Torrey & A. Gray subsp. *exigua*
^a*Claytonia parviflora* Hook. subsp. *parviflora*
^a*Claytonia parviflora* Hook. subsp. *viridis* (Davidson) J.M. Miller & Chambers
^a*Claytonia perfoliata* Willd. subsp. *mexicana* (Rydb.) J.M. Miller & Chambers
^a*Claytonia perfoliata* Willd. subsp. *perfoliata* Miner's lettuce
^b*Lewisia brachycalyx* A. Gray Southwestern bitter-root
^b*Lewisia nevadensis* (A. Gray) Robinson
^b*Montia chamissoi* (Sprengel) E. Greene Cuyamaca, Laguna meadows
^a*Montia fontana* L. Water montia
^a*Montia linearis* (Hook.) E. Greene
^a*Portulaca oleracea* L. Common purslane

PRIMULACEAE/Primrose Family

- ^a*Anagallis arvensis* L. Scarlet pimpernel
^a*Androsace elongata* L. subsp. *acuta* (E. Greene) G. Robb.
^a*Centunculus minimus* L. Chaffweed
^b*Samolus parviflorus* Raf. Water pimpernel

RANUNCULACEAE/Crowfoot Family

- ^b*Anemone tuberosa* Rydb. Poser Mountain, Scove Canyon

- ^h*Aquilegia formosa* Fischer Columbine
^l*Clematis lasiantha* Nutt. Virgin's bower
^l*Clematis ligusticifolia* Nutt. Yerba de chivato
^l*Clematis pauciflora* Nutt. Ropevine
^h*Delphinium cardinale* Hook. Scarlet larkspur
^h*Delphinium hesperium* A. Gray subsp. *cuyamacae* (Abrams) Harlan Lewis & Epling
 Cuyamaca larkspur
^h*Delphinium parishii* A. Gray subsp. *subglobosum* (Wiggins) Harlan Lewis & Epling
 Garnet Mountain, Pinyon Flat
^h*Delphinium parryi* A. Gray subsp. *parryi*
^h*Delphinium patens* Benth. subsp. *hepaticoideum* Ewan
^a*Myosurus minimus* L. Mouse-tail
^h*Ranunculus aquatilis* L. var. *capillaceus* (Thuill.) DC.
^h*Ranunculus aquatilis* L. var. *hispidulus* E. Drew
^h*Ranunculus californicus* Benth. California buttercup
^h*Ranunculus cymbalaria* Pursh var. *saximontanus* Fern.
^a*Ranunculus testiculatis* Crantz. Cuyamaca RSP (RSA-POM)
^h*Thalictrum fendleri* A. Gray var. *fendleri* Meadow-rue
^h*Thalictrum fendleri* A. Gray var. *polycarpum* Torrey

RHAMNACEAE/Buckthorn Family

- ^a*Ceanothus cuneatus* (Hook.) Nutt. var. *cuneatus*
^a*Ceanothus foliosus* C. Parry var. *foliosus* Viejas, Cuyamaca
^a*Ceanothus greggii* A. Gray var. *perplexans* (Trel.) Jepson
^a*Ceanothus leucodermis* E. Greene Whitebark wild lilac
^a*Ceanothus oliganthus* Nutt. var. *oliganthus*
^a*Ceanothus palmeri* Trel.
^a*Rhamnus crocea* Nutt. Spiny redberry
^a*Rhamnus ilicifolia* Kellogg Holly-leaf redberry
^a*Rhamnus tomentella* Benth. subsp. *tomentella*
^a*Ziziphus parryi* Torrey var. *parryi* Lotebush

ROSACEAE/Rose Family

- ^a*Adenostoma fasciculatum* Hook. & Arn. Chamise
^a*Adenostoma sparsifolium* Torrey Red shanks
^h*Agrimonia gryposepala* Wallr. Agrimony
^a*Anelanchier utahensis* Kochne Service-berry
^a*Cercocarpus betuloides* Torrey & A. Gray var. *betuloides*
^a*Cercocarpus minutiflorus* Abrams Viejas Mountain
^h*Fragaria vesca* L. Wild strawberry
^a*Heteromeles arbutifolia* (Lindley) Roemer Toyon
^a*Holodiscus discolor* (Pursh) Maxim. Cuyamaca Peak, Monument Peak
^h*Horkelia clevelandii* (E. Greene) Rydb.
^h*Horkelia truncata* Rydb. Viejas Mountain, Boulder Creek
^h*Potentilla glandulosa* Lindley subsp. *glandulosa* Cinquefoil
^h*Potentilla glandulosa* Lindley subsp. *reflexa* (E. Greene) Keck
^h*Potentilla gracilis* Hook. var. *fastigiata* (Nutt.) S. Watson
^a*Potentilla norvegica* L. Rough cinquefoil
^a*Prunus emarginata* (Hook.) Walp. Bitter cherry
^a*Prunus fremontii* S. Watson Banner; Desert apricot
^a*Prunus ilicifolia* (Nutt.) Walp. subsp. *ilicifolia*

- ^h*Prunus virginiana* L. var. *demissa* (Nutt.) Torrey
- ^a*Rosa californica* Cham. & Schldl. California wild rose
- ^a*Rosa woodsii* Lindley var. *ultramontana* (S. Watson) Jepson
- ^h*Rubus glaucifolius* Kellogg var. *ganderi* (L. Bailey) Munz.
- ^h*Rubus laciniatus* Willd. Cut-leaf blackberry
- ^h*Rubus parviflorus* Nutt. Thimbleberry
- ^h*Rubus ursinus* Cham. & Schldl. California blackberry
- ^h*Sanguisorba minor* Scop. subsp. *muricata* Briq.
- ^u*Sanguisorba occidentalis* Nutt. Cuyamaca Lake, Cuyamaca Peak

RUBIACEAE/Madder Family

- ^c*Galium andrewsii* A. Gray subsp. *andrewsii* Moss bedstraw
- ^c*Galium angustifolium* Nutt. subsp. *angustifolium*
- ^a*Galium aparine* L. Common bedstraw
- ^l*Galium porrigens* Dempster var. *porrigens* Oval-leaf bedstraw

SALICACEAE/Willow Family

- ^l*Populus fremontii* S. Watson subsp. *fremontii* Fremont cottonwood
- ^a*Salix exigua* Nutt. Narrow-leaf willow
- ^l*Salix gooddingii* C. Ball Black willow
- ^l*Salix laevigata* Bebb. Red willow
- ^l*Salix lasiolepis* Benth. Arroyo willow

SAURURACEAE/Lizard-tail Family

- ^a*Anemopsis californica* (Nutt.) Hook. & Arn. Yerba mansa

SAXIFRAGACEAE/Saxifrage Family

- ^h*Boykinia rotundifolia* C. Parry
- ^h*Heuchera brevistaminea* Wiggins Mt. Laguna alum-root
- ^h*Heuchera rubescens* Torrey var. *versicolor* (E. Greene) M.G. Stewart Cuyamaca Peak, Harper's Creek, Scove Canyon
- ^h*Jepsonia parryi* (Torrey) Small Poser Mountain, Cedar Creek
- ^h*Lithophragma affine* A. Gray Woodland star
- ^a*Lithophragma glabrum* Nutt. Seeps, meadows; Corte Madera Ranch, Cuyamaca Lake, Laguna Mountains
- ^h*Saxifraga californica* E. Greene California saxifrage

SCROPHULARIACEAE/Snapdragon Family

- ^a*Antirrhinum coulterianum* Benth. Coulter's snapdragon
- ^a*Antirrhinum kelloggii* E. Greene Poser Mountain
- ^a*Antirrhinum nuttallianum* Benth. subsp. *nuttallianum*
- ^p*Castilleja affinis* Hook. & Arn. subsp. *affinis* Paint-brush
- ^p*Castilleja applegatei* Fern. subsp. *martinii* (Abrams) Chuang & Heckard
- ^p*Castilleja attenuata* (A. Gray) Chuang & Heckard
- ^p*Castilleja densiflora* (Benth.) Chuang & Heckard subsp. *gracilis* (Benth.) Chuang & Heckard
- ^p*Castilleja exserta* (A.A. Heller) Chuang & Heckard subsp. *exserta* [*Orthocarpus purpurascens* Benth.]
- ^p*Castilleja foliolosa* Hook. & Arn. Woolly paint-brush
- ^p*Castilleja miniata* Hook. subsp. *miniata* Giant red paint-brush

- ^a*Castilleja minor* (A. Gray) A. Gray subsp. *spiralis* (Jepson) Chuang & Heckard
California thread-torch
- ^p*Castilleja subinclusa* E. Greene subsp. *subinclusa*
- ^a*Collinsia childii* A. Gray Child's blue-eyed mary
- ^a*Collinsia concolor* E. Greene Southern chinese houses
- ^a*Collinsia heterophylla* Buist Chinese houses
- ^a*Collinsia parviflora* Lindley Smallflower blue-eyed mary
- ^a*Cordylanthus nevinii* A. Gray Cuyamaca Peak, Wooded Hill
- ^a*Cordylanthus rigidus* (Benth.) Jepson subsp. *setigerus* Chuang & Heckard Thread-
leaf bird's beak
- ^a*Keckiella antirrhinoides* (Benth.) Straw var. *antirrhinoides*
- ^a*Keckiella cordifolia* (Benth.) Straw Heart-leaf bush penstemon
- ^a*Keckiella ternata* (Torrey) Straw var. *ternata*
- ^a*Limosella acaulis* Sesse & Mocino Mudwort
- ^a*Linaria canadensis* (L.) Dum.-Cours. Blue toad-flax
- ^a*Linaria genistifolia* (L.) Miller subsp. *dabnatica*^a (L.) Maire & Petitm. Dalmation
toad-flax
- ^a*Mimulus androsaceus* E. Greene 3 miles east of Banner
- ^a*Mimulus aurantiacus* Curtis [*M. aridus* (Abrams) A.L. Grant; *M. longiflorus* (Nutt.)
A.L. Grant; *M. puniceus* (Nutt.) Steudel]
- ^a*Mimulus brevipes* Benth. Slope semaphore
- ^a*Mimulus breweri* (E. Greene) Cov. Cuyamaca RSP
- ^a*Mimulus cardinalis* Benth. Scarlet monkey flower
- ^b*Mimulus clevelandii* Brandegee
- ^a*Mimulus condonii* Robinson Damp, sandy areas in chaparral; Descanso, Poser
Mountain
- ^a*Mimulus floribundus* Lindley
- ^a*Mimulus fremontii* (Benth.) A. Gray
- ^a*Mimulus guttatus* DC. Seep monkey flower
- ^a*Mimulus palmeri* A. Gray
- ^a*Mimulus pilosus* (Benth.) S. Watson
- ^a*Mimulus rubellus* A. Gray Indian Canyon, Poser Mountain (RSA-POM)
- ^b*Pedicularis semibarbata* A. Gray
- ^c*Penstemon centranthifolius* (Benth.) Benth. Scarlet buglar
- ^b*Penstemon clevelandii* A. Gray var. *clevelandii*
- ^c*Penstemon heterophyllus* Lindley var. *australis* Munz & I.M. Johnston
- ^c*Penstemon heterophyllus* Lindley var. *heterophyllus*
- ^b*Penstemon labrosus* (A. Gray) Hook. f.
- ^b*Penstemon rostriflorus* Kellogg [*P. bridgesii* A. Gray misappl.]
- ^b*Penstemon spectabilis* Thurber var. *spectabilis* Showy penstemon
- ^b*Scrophularia californica* Cham. & Schldl. subsp. *floribunda* (E. Greene) Shaw
California bee plant
- ^a*Triphysaria eriantha* (Benth.) Chuang & Heckard subsp. *eriantha*
- ^b*Verbascum thapsus*^a L. Woolly mullein
- ^a*Veronica anagallis-aquatica*^a L.
- ^a*Veronica arvensis*^a L. Corn speedwell
- ^a*Veronica peregrina* L. subsp. *xalapensis* (Kunth) Pennell

SIMAROUBACEAE/Quassia Family

^a*Ailanthus altissima*^a (Miller) Swingle Tree of heaven

SOLANACEAE/Nightshade Family

- ^a*Datura wrightii* Regel Thorn-apple
- ^a*Nicotiana attenuata* Torrey Coyote tobacco
- ^a*Nicotiana glauca*^a Graham Tree tobacco
- ^a*Nicotiana obtusifolia* Martens & Galeotti Desert tobacco
- ^a*Nicotiana quadrivalvis* Pursh
- ^a*Petunia parviflora* A.L. Juss. Wild petunia
- ^a*Physalis crassifolia* Benth. Thick-leaf groundcherry
- ^a*Physalis pubescens* L. var. *integrifolia*^a (Dunal) Waterf.
- ^a*Solanum americanum*^a Miller White nightshade
- ^a*Solanum parishii* A.A. Heller
- ^a*Solanum umbelliferum* Eschsch. Blue witch
- ^a*Solanum xanti* A. Gray

STERCULIACEAE/Cacao Family

- ^a*Femotodendron californicum* (Torrey) Cov. subsp. *californicum*

STYRACACEAE/Storax Family

- ^a*Styrax officinalis* L. var. *redivivus* (Torrey) H. Howard

TAMARICACEAE/Tamarisk Family

- ^a*Tamarix ramosissima*^a Ledeb. Corte Madera Ranch; Tamarisk

ULMACEAE/Elm Family

- ^a*Celtis reticulata* Torrey Net-leaf hackberry

URTICACEAE/Nettle Family

- ^a*Hesperocnide tenella* Torrey Corte Madera Ranch; Rock nettle
- ^a*Parietaria hespera* B.D. Hinton var. *californica* B.D. Hinton Poser Mountain
- ^b*Urtica dioica* L. subsp. *holosericea* (Nutt.) Thorne
- ^a*Urtica urens*^a L. Corte Madera Ranch; Dwarf nettle

VALERIANACEAE/Valenan Family

- ^a*Plectritis brachystemon* Fischer & C. Meyer
- ^a*Plectritis ciliosa* (E. Greene) Jepson subsp. *insignis* (Suksd.) D. Morey Southern plectritis

VERBENACEAE/Vervain Family

- ^c*Phyla nodiflora* (L.) E. Greene var. *nodiflora*^a Corte Madera
- ^b*Verbena lasiostachys* Link. var. *lasiostachys* Western vervain

VIOLACEAE/Violet Family

- ^b*Viola douglasii* Steudel Douglas violet
- ^b*Viola lobata* Benth. subsp. *integrifolia* (S. Watson) R.J. Little
- ^b*Viola lobata* Benth. subsp. *lobata*
- ^b*Viola pedunculata* Torrey & A. Gray Johnny-jump-up
- ^b*Viola purpurea* Kellogg subsp. *purpurea* Mountain violet
- ^b*Viola purpurea* Kellogg subsp. *quercetorum* (M. Baker & J. Clausen) R.J. Little
- ^b*Viola sororia* Willd. subsp. *affinis* (LeConte) R.J. Little

VISCACEAE/Mistletoe Family

- ^a*Arceuthobium californicum* Hawksw. & Wiens
^a*Arceuthobium campylopodium* Engelm. Western dwarf mistletoe
^a*Phoradendron densum* Trel. Dense mistletoe
^a*Phoradendron macrophyllum* (Engelm.) Cockerell
^a*Phoradendron pauciflorum* Torrey White-fir mistletoe
^a*Phoradendron villosum* (Nutt.) Nutt. Oak mistletoe

VITACEAE/Grape Family

- ¹*Vitis girdiana* Munson Desert grape

ZYGOPHYLLACEAE/Caltrop Family

- ^b*Tribulus terrestris* L. Puncture vine

SYMBOLS USED IN THIS CHECKLIST

- ¹ Tree, 6 to 25 meters tall
^a Shrub, 0.5 to 6 meters tall
^c Chamaephyte, vegetative buds not over 0.5 meters above the ground
^b Hemicryptophyte, vegetative buds at surface of soil
^a Geophyte, vegetative buds below the surface of soil
^a Annual
¹ Liana, vine
^a Parasite
^a Plants with life forms ranging from annual to perennial or shrub. These are included in the life form spectrum as "unclassified".
 - Cryptogam (no code)
^{*} Denotes non-native taxon
 Cuyamaca RSP = Cuyamaca Rancho State Park

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APPENDIX I. DISJUNCTS OF THE LAGUNA AND CUYAMACA MOUNTAINS

This list is divided into three parts based on plant distribution, climate, and geology. For an explanation of plant habitat, rarity, and endangerment codes, please refer to the *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (Skinner & Pavlik 1994). Geographic codes follow Hickman (1993).

A. Plants occurring in both the Laguna and Cuyamaca mountains and/or adjacent areas including Corte Madera and Volcan mountains at elevations of 1212 to 1970 meters (4,000 to 6,500 feet).

- Delphinium hesperium* subsp. *cuyamaca* List 1B:2-2-3, CR/C2 LCFrs, Medws (mesic), typical subsp. from SnFrB
- Helianthella californica* var. *nevadensis* LCFrs, VFGrs, near summit of Volcan Mountain, disjunct from SN
- Lasthenia glaberrima* Medws, Corte Madera and Cuyamaca lakes, disjunct from San Luis Obispo County
- Limnanthes gracilis* subsp. *parishii* List 1B:2-2-3, CE/C2 Medws (vernally mesic), VnPls, typical subsp. from OR
- Minuartia pusilla* Chprl, LCFrs/sand or clay, disjunct from SnFrB
- Thermopsis californica* var. *senota* List 1B:2-2-3 CmWld, LCFrs, VFGrs, typical subsp. from nSW

B. Plants occurring in the Cuyamaca Mountains at elevations of 1212 to 1970 meters (4,000 to 6,500 feet).

- Aspidotis densa* LCFrs, Medws/gabbro outcrops on Cuyamaca Peak, disjunct from SN, usually on serpentine
- Ceanothus foliosus* var. *foliosus* Chprl/gabbro, disjunct from SnFrB
- Danthonia unispicata* Medws/gabbro, disjunct from SN
- Downingia concolor* var. *brevior* List 1B:3-3-3, CE/C1 Medws (mesic), VnPls, typical subsp. from SnFrB
- Epilobium minutum* Chprl, Medws/gabbro, Cuyamaca Peak, disjunct from CW, SN
- Gayophytum humile* Medws/gabbro, Cuyamaca Lake and Cuyamaca Peak, disjunct from SnBr
- Lewisia brachycalyx* List 4:1-1-1 Medws (mesic)/gabbro, disjunct from SnBr
- Lewisia nevadensis* Medws (mesic)/gabbro, disjunct from SnBr

Navarretia tagetina Medws, Cuyamaca Lake, disjunct from ScV

Moehringia macrophylla LCFrs/gabbro, disjunct from SCoRO, usually on serpentine

Polygonum parryi Medws (mesic)/gabbro, Cuyamaca Lake, Cuyamaca Peak, disjunct from SN

Rubus glaucifolius var. *ganderi* List 1B:3-1-3 LCFrs/gabbro, typical subsp. from SN

Sanguisorba occidentalis Medws/gabbro, disjunct from nCCO, SNH

C. Plants occurring in the foothills of the Cuyamaca Mountains at elevations of 910 to 1212 meters (3,000 to 4,000 feet).

Ceanothus foliosus var. *foliosus* Chprl/gabbro, disjunct from SnFrB

Filago arizonica Chprl, VFGrs/damp clay, coastal-desert disjunct, from se AZ, nw México

Harpagonella palmeri List 2:1-2-1 Chprl, CoScr, VFGrs/damp clay, coastal-desert disjunct, from AZ, nw México

Mimulus congonii Chprl/damp sand, disjunct from SN and Ventura County

APPENDIX II. LIFE FORM SPECTRUM

	Total	%	Native	%
Trees	30	3.0	28	2.8
Shrubs	123	12.4	121	12.1
Chamaephytes	27	2.7	26	2.6
Hemicryptophytes	327	32.8	283	28.4
Annuals	383	38.5	294	29.6
Geophytes	27	2.7	27	2.7
Parasites	18	1.8	18	1.8
Lianas	5	0.5	5	0.5
Unclassified	29	2.9	18	1.8
Cryptogams	27	2.7	27	2.7
Total	996		847	85.0

APPENDIX III. NUMBER OF INTRODUCED GENERA AND SPECIES BY FAMILY

Family	Genera	Species
Aizoaceae	1	1
Amaranthaceae	1	2
Apiaceae	7	7
Asteraceae	13	18
Brassicaceae	11	13
Caryophyllaceae	5	7
Chenopodiaceae	3	3
Dipsacaceae	1	1
Euphorbiaceae	1	1
Fabaceae	6	9
Geraniaceae	2	3
Hypericaceae	1	1
Lamiaceae	3	4
Lythraceae	1	1
Malvaceae	1	1
Meliaceae	1	1
Nelumbonaceae	1	1
Onagraceae	1	1
Plantaginaceae	1	2
Polygonaceae	2	4
Portulacaceae	1	1
Primulaceae	1	1
Ranunculaceae	1	1
Rosaceae	3	3
Rubiaceae	1	1
Scrophulariaceae	2	4
Simaroubaceae	1	1
Solanaceae	2	2
Tamariaceae	1	1
Urticaceae	1	1
Verbenaceae	1	1
Zygophyllaceae	1	1
Liliaceae	1	1
Poaceae	28	49
Total	108	149 (15%)